REMARKS/ARGUMENTS

The informality in claim 35 has been corrected to overcome the Examiner's objections.

The rejection of claims 24, 26 and 27 under 35 U.S.C. 112 is respectfully traversed. Hall effect is not a trademark/trade name but a well known and defined technical term describing the physical nature of the sensor, as shown in the entry on page 718 of the McGraw Hill Dictionary of Scientific and Technical Terms, Second Edition, reproduced hereinbelow:

Hall effect [ELECTROMAG] The development of a transverse electric field in a current-carrying conductor placed in a magnetic field; ordinarily the conductor is positioned so that the magnetic field is perpendicular to the direction of current flow and the electric field is perpendicular to both.

Hall-effect gaussmeter [ENG] A gaussmeter that consists of a thin piece of silicon or other semiconductor material which is inserted between the poles of a magnet to measure the magnetic field strength by means of the Hall effect.

Hall-effect isolator [ELECTROMAG] An isolator that makes use of the Hall effect in a semiconductor plate mounted in a magnetic field, to provide greater loss in one direction of signal travel through a waveguide than in the other direction.

Hall-effect modulator [ELECTR] A Hall-effect multiplier used as a modulator to give an output voltage that is proportional to the product of two input voltages or currents.

Hall-effect multiplier [ELECTR] A multiplier based on the Hall effect, used in analog computers to solve such problems as finding the square root of the sum of the squares of three independent variables.

Hall-effect switch [ELECTR] A magnetically activated switch that uses a Hall generator, trigger circuit, and transistor amplifier on a silicon chip.

Claim 17 has been amended to make explicit that the electronic evaluation device in the toe binding and in the heel binding has a separate power supply system in each binding. Each evaluation device has a transmitter and receiver device for a wireless, uni- or bidirectional data or signal transmission therebetween.

A safety ski binding with features (e) and (f) of claim 17 is not suggested by the cited Rohrmoser and Smolka et al patents, and this claim is respectfully submitted to be patentable thereover under 35 U.S.C. 103(a).

Rohrmoser's monitoring and/or controlling device for a ski binding comprises a visible and/or acoustic display device, a measuring device and an energy source. When used in a pair of ski bindings, the devices can exchange information by wireless transmissions, which may match each other. This information may be used to match the skis of the pair, or if they do not match, this will be indicated to the user visually or audibly. As pointed out in col. 10, lines 17-35, of the patent, this will avoid accidents caused by mismatched pairs.

Fig. 8 shows such a pair of skis. Each ski has <u>the same</u> transmitting and receiving device 52 and <u>the same</u> evaluation device 53 for both the toe binding and the heel binding, <u>not separate</u> devices.

The energy source may be housed in a chamber in the ski, an intermediate plate and/or in the binding itself. It may also be provided in a shoe and is preferably connected to the monitoring and/or controlling device by a device for the wireless transmission of energy. Furthermore, the energy source may be comprised of solar cells. According to col. 5, lines 16-22, of the patent, the monitoring and/or controlling device is connected with the measuring device at least by one line channel integrated in the ski and/or the intermediate plate and cable lines arranged in the channel.

Smolka et al describe a ski binding adapted for emergency release by the operation of an electromagnet. Electromagnet 8 is arranged in a circuit fed by battery 8 and closed by switch 7. The battery and switch are mounted in the ski pole handle 9. The circuit cables 11 are provided inside the skier's clothing. As shown in Fig. 3, an identical arrangement of a permanent magnet 4, an electromagnet 5 and a radio, sonic or other impulse receiver 15 is provided for the toe binding and the heel binding. Figs. 4 and 5 show the connection of a binding to circuit cables 11. The circuit comprises electromagnet 20 arranged **in** the binding, and battery 8 and switch 22 **outside** the binding.

It is a primary object of the claimed invention to provide a safety ski binding in which operating states and settings pertaining to safety as well as of general interest are

electronically detected and monitored, and which is structurally simple, cost-effective and functionally reliable for long periods despite its increased numbers of functions. This is accomplished with the claimed ski binding which has an electronic evaluation device **in** the toe binding and **in** the heel binding, with **each** electronic evaluation device having its own **separate** power supply system, and each electronic evaluation device having a transmitter and receiver device for a wireless, one-way or two-way data or signal transmission **therebetween**. Nothing like this has been suggested by the art of record.

In Rohrmoser's monitoring and control device for a ski binding, which has a single power source for the toe and heel bindings of each ski of a pair. There is no suggestion of providing a separate and independent power source in the toe binding and the heel binding. Data are transmitted between the skis of the pair. There is no suggestion of wirelessly transmitting data between electronic evaluation devices in the toe binding and the heel binding of each ski, and there are no separate powers sources in each binding. Rohrmoser only wirelessly transmits data between the two skis of a pair (col. 5, lines 33-39), **not** between the toe binding and the heel binding of a ski. Data between the toe and heel bindings of each ski are transmitted by line connections or light guides (col. 5, lines 16-22; and col. 12, lines 41-45, for example).

Smolka describes like toe and heel bindings which may be

released by de-activating an electromagnet. Each binding has a power source (battery) located in a ski pole and connected with the electromagnet by cables located in the clothes of the user. The power source is **not** located **in** the binding, which avoids transmission lines **outside** the binding, nor is there wireless data transmission between the toe binding and the heel binding. As a matter of fact, the drawings lead a person of ordinary skill in the art away from providing a power supply system **in** the binding since they only illustrate such a system (a battery) **outside** the binding, with **external** transmission lines connecting the battery with the electromagnet in the binding. Nothing in Smolka suggests data transmission between the toe binding and the heel binding of a ski, nor is there a suggestion of an electronic evaluation device for evaluating the set safety values.

One of the advantages of the claimed provision of **separate** power supply systems is that a relatively loss-free and trouble-free transmission of power to each evaluation device is assured. Also, the claimed transmitter and receiver device is able to transmit data wirelessly from the binding that carries no display device to the binding that carries it, only a **single** display device being provided. In this way, the data are cost-effectively and reliably displayed. Such a safety ski binding will operate reliably over a long period of time, even under adverse operating conditions. The wireless transmission of data between the separate electronic circuits in the toe and

heel bindings avoid the risks typically encountered in cable transmissions between these bindings, due to bad electrical contacts, for example. This does not only make the binding more reliable but also considerably reduces the construction costs, for example for providing insulations to avoid short-circuits, or costs for technically complex embodiments for transmitting electrical signals within variable distances between the toe and heel bindings. In other words, a number of technical problems are avoided by the claimed structure of a safety ski binding.

In view of the above, claim 17 is respectfully submitted clearly to be patentable. Dependent claims 18-37 recite details and preferred embodiments of the features set forth in claim 17, and these claims are believed to be allowable therewith. Favorable reconsideration and allowance of claims 17-37 are accordingly respectfully solicited.

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